



KERALA GAZETTE

കേരള ഗസറ്റ്

PUBLISHED BY AUTHORITY

ആധികാരികമായി പ്രസിദ്ധപ്പെടുത്തുന്നത്

Vol. II വാല്യം 2	THIRUVANANTHAPURAM, TUESDAY തിരുവനന്തപുരം, ചൊവ്വ	5th February 2013 2013 ഫെബ്രുവരി 5 16th Magha 1934 1934 മാഘം 16	No. നമ്പർ	6
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PART III

Stores Purchase

Electrical Inspectorate Department

SHORT TENDER NOTICES

(1)

[No. 04/2012-13/CEI]

No. G1/18377/2012/CEI. 15th January 2013.

Sealed tenders are invited for the supply of following Items to the Office of the Chief Electrical Inspector, Housing Board Buildings, Shanthi Nagar, Thiruvananthapuram.

Sl. No.	Name of Instrument/ Equipment with Specification	Quantity required (Nos.)
1	Multi function Tester for Safety Testing	1
2	High Precision Earth Tester	1
3	Micro Ohm Meter (10/100A)	1

PAC — 11 lakh.

E.M.D.— 11,000.

Cost of tender form (Including 5% VAT):

Original— 1,733.

Duplicate— 867.

Last date and time of sale of tender form—10-2-2013 at 12 noon.

Last date and time of receipt of sealed tenders—10-2-2013 at 3 p. m.

Date and time of opening of tender—10-2-2013 at 3.30 p. m.

Tender outer cover should be addressed to—The Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram-695 001.

Method of submission of tender—Open Tender—2 Part.

Place at which tenders will be opened—In The Chamber of the Chief Electrical Inspector, Thiruvananthapuram (If the due date for receiving and opening the tenders happens to be declared holiday, then the tender will be received and opened on the next working day, for which no prior intimation will be given).

Tender Form (Original) and Tender Form (Duplicate) can be purchased from the Office of the Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram-695 001.

- * Downloaded tender forms are not accepted.
- * Cost of tender forms (Original and Duplicate) is accepted only in Cash.

For further details visit www.cei.kerala.gov.in

തിരുവനന്തപുരം മുഖ്യ വൈദ്യുതി ഇൻസ്പെക്ടറുടെ കാര്യാലയത്തിലേക്ക് താഴെപ്പറയുന്ന ഉപകരണങ്ങൾ വാങ്ങുന്നതിന് മുദ്രവച്ച ദർഘാസുകൾ ക്ഷണിച്ചുകൊള്ളുന്നു.

ക്രമ നമ്പർ	ഉപകരണത്തിന്റെ പേരും വിശദവിവരവും	ആവശ്യമുള്ള എണ്ണം
1	മൾട്ടി ഫങ്ഷൻ ടെസ്റ്റർ ഫോർ സേഫ്ടി ടെസ്റ്റിംഗ്	1
2	ഹൈ പ്രസിഷൻ എർത്ത് ടെസ്റ്റർ	1
3	മൈക്രോ ഓം മീറ്റർ (10/100എ)	1

അടങ്കൽ തുക— 11 ലക്ഷം.

നിരതദ്രവ്യം— 11,000.

ദർഘാസ് ഫോറത്തിന്റെ വില (5% വാറന്റ് സഹിതം):—

അസ്സൽ— 1,733.

പകർപ്പ്— 867.

ദർഘാസ് ഫോറം വിൽക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 12 മണി.

പുരിപ്പിച്ചതും സീൽ ചെയ്തതുമായ ദർഘാസുകൾ സ്വീകരിക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 3 മണിവരെ.

ദർഘാസുകൾ തുറക്കുന്ന തീയതിയും സമയവും— 10-2-2013, 3.30 മണി.

വിശദ വിവരങ്ങൾ www.ceikerala.gov.in എന്ന വെബ് സൈറ്റിൽ ലഭ്യമാണ്.

SPECIFICATION FOR MULTIFUNCTION TESTER

The Multifunction Tester shall be a single instrument for testing low voltage electrical installations confirming IEC 60364 and shall offer the following tests as detailed below :—

- System voltage and frequency measurement (TRMS).
- Insulation resistance measurement in range.
- Input protection against live circuits up to 600 V when insulation test is locked-on

- Continuity resistance at 200 mA & 15 mA (hands free testing)
- Resistance range up to 100 kΩ with fast continuity buzzer and selectable thresholds
- 2-wire Loop test
- Non-trip (RCD) and high-current testing-including Phase-to-Phase
- Prospective fault current measurement—upto 20 kA
- RCD testing including
- Earth testing
- Phase Rotation Testing

TECHNICAL SPECIFICATIONS

Insulation Test

Output Voltage Accuracy:— -0% - +20%

Short Circuit Current:— 1.5mA

Test Current on Load :— 1mA at Pass Values

Accuracy :— 3% Typical & 12% worst case

Loop Tests

Live – Earth = 48- 280V @ 45-65 Hz

Live – Live = 48 – 480 V @ 45- 65 Hz

With an Accuracy of ± 7.5% L-L/L-N tests

Rcd Tests

Supply up to 100 mA

48 V ~ 480 V (45 Hz ~ 65 Hz)

Supply up to 1 A 48 V ~ 280 V

RCD type Type AC, A, S, Type B

Step Increments (Variable RCD selection)

10 mA ~ 50 mA 1 mA steps

50 mA ~ 500 mA 5 mA steps

500 mA ~ 1000 mA 10 mA steps

Voltage Measurement :— 10V – 600V (15 Hz-400 Hz) TRMS

Frequency Measurement :—15 Hz- 400 Hz with 0.1Hz Resolution

Earth Test Measurement Range :—0.01 Ω–2 kΩ

Earth Test Measurement Current 0.45 mA or 4.5 mA

Noise rejection of 20 V (pk-pk)

Safety & Protection:—

If a voltage is detected on the test sample, the MFT shall display the Voltage & if it exceeds the safe limit, shall give out Audio Alarm and inhibit testing under this condition.

Shall meet the following Safety Standards:—

IEC 61010-1:2010

IEC 61010-30:2010

IEC 61010-031:2008

600 V Cat III / 300 V Cat IV

IEC 61557:2007 parts 1 to 10

EMC Compliance:—as per IEC61326 edition
2 location class B

Shall be IP 54 or better.

Operating Temperature = -10°C to + 55° C @ 90% RH
Weight Shall not exceed 1.25 kg

Data Storage & Download :

The Multifunction Tester shall have storage facility (Minimum 1000 test results) and it shall be possible to download the Data using Blue Tooth to a PC with the required Analysis Software. The Analysis Software must be supplied along with the MFT.

The Multifunction tester shall be supplied with leads, power cords, rechargeable battery & charger, Data Download Software etc.

SPECIFICATION FOR PRECISION EARTH TESTER

Supply, Installation, Testing and Training on the
AUTO EARTH TESTER

SPECIFICATIONS :

- Earth Resistance Range:—0.010 Ω to 19.99 k Ω (auto-ranging), 1 m Ω resolution
- Accuracy 23 C \pm 2 C:— \pm 0.5% of reading \pm 2 digits
- Service Error:— \pm 5% of reading \pm 2 digits \pm 10 m Ω (meets VDE service error over 50 m Ω)
- Comply with Standards:—BS 7430 (1991) VDE 0413 part 7 (1982)
- Test Frequency:—
105 to 160 Hz revising d.c. (50 Hz operation default to 128 Hz operation default to 150 Hz) set in steps of 0.5 Hz
- Test current:—
50 mA max (selectable high and low levels)
- Maximum Output Voltage:—
<50V r.m.s.

- Maximum Interference:—
Typically 40V peak-to-peak (50/60) Hz, sinusoidal nature
- Display:—
Alphanumeric L.C.D. (130*35mm) giving test information and a large (20 mm) 3 1/2 – digit reading
- Temperature Co-efficient:—
< \pm 0.1% per °C over the temperature range -10 to + 40 °C, 0.05% per °F from 14 to 104 °F
- Temperature Range:—
Operating :-10 to +40 °C (14 to 104 °F)
Storage : -20 °C to +60 °C (-4 to +140 °F)
- Humidity:—
Operating : 90% RH max. at 40 °C (104 °F)
- Environmental Protection:—The instrument is water proof to IP54
Flash Test : 3 k V a.c.
Voltage withstand
In the event of a system fault, the instrument will withstand 240 V a.c. applied between any two terminals.
- **Power Supply**

Internal :

Rechargeable, sealed lead-acid battery, 12 V (nominal), 2.6 Ah capacity. Battery voltage over which basic accuracy is maintained is 11 to 13.5 V
Battery life : Approximately 5 hrs. continuous use
Battery charging time : 6 hrs. max. (from completely exhausted), charging current Automatically controlled to stop over charging.

Charging supply required : 100 to 130 v or 200
To 260 V, 50/60 Hz

Power consumption : 9 W max. at 12 V

- **Safety**
The instruments meet the requirements of IEC 1010 -1
- **EMC**
In accordance with IEC 1326 including amendment No.1
- Maximum Current Spike (Loop) Resistance

High Range (RE)	Low current (RC)	Current (RC)
0.010 to 0.499 Ω	5k Ω	1k Ω
0.500 to 1.999 Ω	5k Ω	3k Ω
2.000 to 19.99 Ω	10k Ω	5k Ω

- Maximum Potential Spike (Loop) Resistance

<i>High Range (RE)</i>	<i>Low current (RP)</i>	<i>Current (RP)</i>
0.010 to 0.499 Ω	11k Ω	11k Ω
0.500 to 1.999 Ω	21k Ω	11k Ω
2.000 to 19.99 Ω (over 20 Ω RP > 20 k Ω)	21k Ω	11k Ω

SPECIFICATION FOR MICRO OHM METER

The Micro Ohm Meter shall be suitable for testing contact resistances of high-voltage circuit breakers, disconnecting switches /isolators and bus bar joints etc.

TECHNICAL SPECIFICATION :—

Output Current

Output Current range = 0 – 200A DC

Open circuit voltage = 4.7 V DC

Current shunt output 10 mV / 100 A \pm 0.5%, max. 20 mV out, max. 10 V to protective earth

Resistance

Range = 0 – 1999 $\mu\Omega$ with a resolution of 1 $\mu\Omega$
0 – 19.99 m Ω with a resolution of 10 $\mu\Omega$

Accuracy \pm 1% of reading

Duty Cycle

<i>Output Current</i>	<i>Min. Output Voltage</i>	<i>ON time</i>	<i>OFF time</i>
100 A DC	3.8 V DC	5 min. 15 min.	15 min. 60 min.
200 A DC	3.0 V DC	20 sec.	5 min.

The unit shall be mains operated @ 230V, 50Hz

Operating Temperature :— 0°C - + 50°C @ 95% RH no condensing.

The instrument is intended for use in high-voltage substations and industrial environments and hence shall be free from interference common in such environments.

The equipment shall be well protected against overloads with protective devices like MCBs & Thermal cut outs.

The unit shall be CE Marked.

The Micro Ohm Meter shall be light weight, weighing a maximum of 15kg and portable so that it can be carried easily to the sample under test.

The unit shall be supplied complete with Current Cables, Sensing Cables, Power Cords and other accessories required for performing tests as detailed above.

(2)

[No. 05/2012–13/CEI]

No. G1/18377/2012/CEI.

15th January 2013.

Sealed tenders are invited for the supply of following items to the Office of the Chief Electrical Inspector, Housing Board Buildings, Shanthy Nagar, Thiruvananthapuram.

<i>Sl. No.</i>	<i>Name of Instrument / Equipment with specification</i>	<i>Quantity required (Nos.)</i>
1	Digital Earth Tester	14
2	Insulation Tester (10V to 500V)-50 G-ohm	14

PAC — 18.2 lakhs.

E.M.D— 18,200.

Cost of tender form (Including 5% VAT):

Original ₹ 2,867.

Duplicate— 1,434.

Last date and time of sale of tender form—10-2-2013 at 12 noon.

Last date and time of receipt of sealed tenders—10-2-2013 at 3 p.m.

Date and time of opening of tender—10-2-2013 at 3.30 p.m.

Tender outer cover should be addressed to The Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhy Nagar, Thiruvananthapuram-695 001.

Method of submission of Tender—Open Tender-2 Part.

Place at which tenders will be opened—In The Chamber of the Chief Electrical Inspector, Thiruvananthapuram. (If the due date for receiving and opening the tenders happens to be declared holiday, then the tender will be received and opened on the next working day, for which no prior intimation will be given.)

Tender Form (Original) and Tender Form (Duplicate) can be purchased from the office of the Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram- 695 001.

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ക്രമ നമ്പർ	ഉപകരണത്തിന്റെ പേരും വിശദവിവരവും	ആവശ്യമുള്ള എണ്ണം
1	ഡിജിറ്റൽ എർത്ത് ടെസ്റ്റർ	14
2	ഇൻസുലേഷൻ ടെസ്റ്റർ (10 വി. 500 വി)-50 G-ohm	14

അടങ്കൽ തുക— 18.2 ലക്ഷം.

നിരതദ്രവ്യം— 18,200

ദർഘാസ് ഫോറത്തിന്റെ വില (5 % വാറ്റ് സഹിതം):

അസ്സൽ— 2,867.

പകർപ്പ്— 1,437.

ദർഘാസ് ഫാറം വിൽക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 12 മണി.

പുരിപ്പിച്ചതും സീൽ ചെയ്തതുമായ ദർഘാസുകൾ സ്വീകരിക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 3 മണിവരെ.

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വിശദ വിവരങ്ങൾ www.ceikerala.gov.in എന്ന വെബ്സൈറ്റിൽ ലഭ്യമാണ്.

SPECIFICATIONS FOR DIGITAL EARTH TESTER

The Digital Earth Tester is required for the measurement Resistance of Earth under the following conditions.

- Measurement of earth resistance in difficult situations, where noise is present in the earth.
- Measurement of earth resistance for large complex earthing systems.
- Accurate measurement of earth resistance in sub-station site where variation of soil resistivity values will be high.

Constructional features

Digital Earth Tester shall be robust, compact instrument designed for measuring electrode resistance. The instrument should have facility of 2,3 & 4 point testing without the need to short the terminals externally.

The earth tester must have selectable output voltage range of 25V and 50V and a Test current of 450 μ A at 25 V or 50 V (selectable), 4.5 mA at 25 V

The ground tester should automatically check the connection of the P spike and C spike, and indicate the status on the display.

The instrument should also measure & display the ground voltage.

To allow accurate testing in noisy environments the instrument should be capable of rejecting noise of up to 40 V peak to peak.

Instrument should Automatically check and display / indicate the following:

- The noise interference in the soil passing the test current is excessive.
- The current spike resistance is too high
- The potential spike resistance is too high.
- The battery status Indication

Maximum probe resistance:

Rp limit: 100 k Ω (50 V output voltage)

Rc limit: 100 k Ω (50 V output voltage)

Limits reduced to 50 k Ω for 25 V output voltage

Limits reduced to 5 k Ω for 0.01 Ω resolution

The instrument should meet Safety requirements of EN61010-1 CAT IV 100 V, EN61557-1, EN61557-5.

EMC:— Should meet the requirements of IEC61326 including amendment No. 1.

The main technical parameter and features shall be as follows:

Earth resistance range	..	0.01 Ω to 20k Ω
Resistance Accuracy	..	2% \pm 3 digits
Test Frequency	..	128 Hz
Voltage Measurement	..	0 to 100V
Noise Rejection	..	40V P _k to P _k
Environmental Protection	..	The instrument should be waterproof to IP54
Operating Temperature	..	-15°C to +55°C
Flash Test	:	2.3 kV a.c
Voltage Withstand	..	In the event of a system fault, the instrument should withstand 240V a.c. applied between any two terminals.

SPECIFICATION FOR 500V INSULATION TESTERS WITH PI & DAR

The Insulation Tester shall have the following:-

- Timed testing with Auto PI & DAR Tests
- Test inhibit - prevent testing if voltages in excess of 50 V are detected when making Insulation tests
- Live circuit detection shall function even if the protection fuse has failed
- CAT IV 600 V
- Dual Digital Display for simultaneous display of related parameters
- Actual Test Voltage to be displayed always during the test
- Display the battery condition status always
- Auto test mode for two handed operation by eliminating the need to press the test button
- Test Lock to eliminate the need to keep the Test Button pressed while testing
- Lead Null (Lead resistance compensation)
- Limit Alarm for continuity test – Buzzer sounds if the resistance value is less than the set limit

TECHNICAL SPECIFICATION:

Nominal test voltages :- 10V, 25V, 50 V, 100 V, 250 V, 500 V

Insulation resistance range : - 50 GΩ @ 500V

Range Full Scale Accuracy : ±3% (typical) & ±4% (worst case) at 500V

Short Circuit Current: 2 mA

Terminal voltage: -0% +20% ±1 V

Test Current on load: - 1 mA at min. pass value of insulation specified in BS7671, HD384 and IEC 364, 2 mA max.

EN61557 Operating range: 0.10 MΩ to 1.00 GΩ

Leakage current range: 10 μA 2000 μA

Leakage current Accuracy: 10% typical

Voltage display Accuracy: 3% typical

Polarisation Index (PI): 10 min / 1 minute ratio

Dielectric Absorption Ratio (DAR): 60 sec / 30 sec ratio

Continuity Measurement:

Range : - 0.01Ω to 99.9Ω

Accuracy: ±2% ±2 digits

Open circuit voltage: 5 V ±1 V

Test current: 200 mA ±1 mA / 20 mA ±1 mA

Zero offset at probe tips: 0.10 Ω typical

Lead resistance zeroing facility

Buzzer: Shall have Variable limit

Resistance Measurement:

Range: - 0.01 kΩ to 1000 kΩ

Accuracy: ±5%

Voltage Measurement

Range: - 0 to 600 V d.c.

10 mV to 600 V TRMS sinusoidal (40 to 400 Hz)

0 to 1000 V on Analogue scale

Frequency Measurement: 40-450 Hz

The Insulation Tester shall display the following Parameters:—

It shall have a Digital as well as Analogue Back light Display which shall display the following parameters:-

- Actual Test Voltage
- Insulation leakage current
- Insulation Resistance (IR) , Polarisation Index (PI) & Dielectric Absorption Ratio (DAR)
- Voltage Measurement DC & AC TRMS
- Frequency
- Battery Condition Display.

Fuse protection

The IR tester shall Use only ceramic fuse of high breaking capacity HBC 50 kA minimum.

Safety Protection

The instruments meet EN 61010-1 (1995) to 600 V phase to earth, Category IV.

EMC.

In accordance with IEC 61326 including amendment No.1.

Environmental

Operating range: -10 to +55°C @ 90% RH.

Dust and water protection: IP54

Weight :- Light weight & ideally less than 2kg.

Shall be supplied with Silicone Test Leads, Remote Switched Probes, Protective rubber boots & Calibration Certificate.

(3)

[No. 06/2012-13/CEI]

No. G1/18377/2012/CEI.

15th January 2013.

Sealed tenders are invited for the supply of following items to the Office of the Chief Electrical Inspector, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram.

Name of Equipment—Oil Test Set

Quantity required —1 No.

PAC — 10 lakh

E.M.D— 10,000

Cost of tender form (Including 5% VAT):

Original— 2,100

Duplicate— 1,050

Last date and time of sale of tender form—10-2-2013 at 12 Noon.

Last date and time of receipt of sealed tenders—10-2-2013 at 3 p.m.

Date and time of opening of tender—10-2-2013 at 3.30 p.m.

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Place at which tenders will be opened—In The Chamber of the Chief Electrical Inspector, Thiruvananthapuram (If the due date for receiving and opening the tenders happens to be declared holiday, then the tender will be received and opened on the next working day, for which no prior intimation will be given.)

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ഉപകരണത്തിന്റെ പേര്—ഓയിൽ ടെസ്റ്റ് സെറ്റ്.

ആവശ്യമുള്ള എണ്ണം—1

അടങ്കൽ തുക— 10 ലക്ഷം.

നിരതദ്രവ്യം— 10,000

ദർഘാസ ഫോറത്തിന്റെ വില (5 % വാറ്റ് സഹിതം):

അസ്സൽ— 2,100

പകർപ്പ്— 1,050

ദർഘാസ ഫോറം വിൽക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 12 മണി.

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വിശദ വിവരങ്ങൾ www.cei.kerala.gov.in എന്ന വെബ്സൈറ്റിൽ ലഭ്യമാണ്.

100 KV TRANSFORMER OIL BREAKDOWN VOLTAGE TEST SET

1. The equipment offered shall be suitable for determination of electrical strength (breakdown voltage) of insulating oil conforming to IS - 335 upto 100 kV when measured in accordance with IS : 6792.
2. The unit shall be fully automatic; microprocessor controlled with built in colour display and printer & shall be complete with test cell stirrer and necessary gauges for adjusting the gap.
3. The test cell shall be as per IS : 6792 suitable for BDV upto 100 kV without external flash over.
4. The unit shall be of composite type having control unit and high voltage transformer in a common cabinet with necessary partition. HV chamber interlocking and zero start interlocking shall be provided.
5. The unit shall have motorized drive to increase voltage linearly as per the rate specified as per various testing standards namely IEC156, ASTM etc. Provision should also be available for user settable tests. The unit shall be automatic and complete with test cell, stirrer and “GO” and “NO GO” gauge for adjusting the gap. Precision thumb wheel electrode gap adjustment facility with Electrode gap locking facility should be available.
6. Parameters for test specification as defined by different standards like IEC156, ASTM should be pre-programmed in the instrument. The user needs to just select the standard used for test.
7. Test Voltage : 0-100KV, 0.1KV resolution
8. Accuracy of Voltage 0.1KV
9. Breakdown detection should perform in terms of both “Voltage” and “Current”
10. Trip time should be less than 10mSec

11. The short-circuit current of the transformer and associated trip time required as per IEC156 shall be 4mA for 5ms and 1ms in case of Silicon oils. Normal breakdown detection speed shall be within 10msec.
12. The HV switch off time shall be <10 micro sec. automatically if an established arc of 4mA occurs for 5ms as required by IEC156.
13. The equipment shall be suitable for operation at 85 to 265 volts 50 Hz. Single phase A.C. input supply.
14. Instrument should have automatic Oil temperature measurement facility with a resolution of 1°C.
15. Instrument have Built in printer and RS232 and USB port shall
16. Instrument should have inbuilt memory and USB stick memory facility for easy transportation of results without a need to carry instrument near to computer.
17. Instrument should have alphanumeric keypad to facilitate entry of test ID notes etc.
18. Instrument should have spill oil drain facility in the instrument.
19. The test set should give all the test results with standard deviation, average of reading and a pass/fail message wherever necessary on screen and a built in printer.
20. Instrument should meet EMC requirement in accordance with IEC61326-1 Class B, CISPR22, CISPR 16-1 and CISPR 16-2.
21. Instrument should meet the safety requirement of IEC1010-1 (1991).
22. Weight of the instrument should not be more than 40 Kgs.
23. Report generations of software shall be supplied
24. A suitable calibrator should be provided with the set.
25. Calibration meter shall be suitable for verifying the calibration of oil test sets up to 100KV. The meter should traceable to national/industrial standards.
26. The calibration meter should fit in the oil test set chamber in place of a standard vessel. The design should ensure that the load to the transformer is similar to the load during an oil dielectric strength test. The voltage indication on the calibrator meter viewed should be on an analogue display marked from 0 to 100 kV with 2 kV divisions.

(4)

[No. 07/2012-13/CEI]

No. G1/18377/2012/CEI.

15th January 2013.

Sealed tenders are invited for the supply of following Equipment to the Office of the Chief Electrical Inspector, Housing Board Buildings, Shanthi Nagar, Thiruvananthapuram.

Name of Equipment—H. V. Probe (40kV DC)

Quantity required —4 Nos.

PAC — 40,000.

E.M.D.— 400.

Cost of tender form (Including 5% VAT):

Original— 315.

Duplicate— 158.

Last date and time of sale of tender form—10-2-2013 at 12 noon.

Last date and time of receipt of sealed tenders—10-2-2013 at 3 p. m.

Date and time of opening of tender—10-2-2013 at 3.30 p. m.

Tender outer cover should be addressed—The Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram-695 001.

Method of submission of tender—Open Tender-2 Part.

Place at which tenders will be opened—The Chamber of the Chief Electrical Inspector, Santhi Nagar, Thiruvananthapuram (If the due date for receiving and opening the tenders happens to be declared holiday, then the tender will be received and opened on the next working day, for which no prior intimation will be given).

Tender form (Original) and tender form (Duplicate) can be purchased from the Office of the Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram- 695 001.

* Downloaded tender forms are not accepted.

* Cost of tender forms (Original and Duplicate) is accepted only in Cash.

For further details visit www.ceikerala.gov.in

തിരുവനന്തപുരം മുഖ്യ വൈദ്യുതി ഇൻസ്പെക്ടറുടെ കാര്യാലയത്തിലേക്ക് താഴെപ്പറയുന്ന ഉപകരണം വിതരണം ചെയ്യുന്നതിന് മുദ്രവച്ച ദർഘാസുകൾ ക്ഷണിച്ചുകൊള്ളുന്നു.

ഉപകരണത്തിന്റെ പേര്—H. V. Probe (40kV DC)

ആവശ്യമുള്ള എണ്ണം—4.

അടങ്കൽ തുക— 40,000

നിരതദ്രവ്യം— 400.

ദർഘാസ് ഫാറത്തിന്റെ വില്പ (5 % വാറ്റ് സഹിതം):

അസ്സൽ— 315.

പകർപ്പ്— 158.

ദർഘാസ് ഫോറം വിൽക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 12 മണി.

പുതിപ്പിച്ചതും സീൽ ചെയ്തതുമായ ദർഘാസുകൾ സ്വീകരിക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, വൈകിട്ട് 3 മണി.

ദർഘാസുകൾ തുറക്കുന്ന തീയതിയും സമയവും—10-2-2013, വൈകിട്ട് 3.30 മണി.

വിശദ വിവരങ്ങൾ www.cei.kerala.gov.in എന്ന വെബ് സൈറ്റിൽ ലഭ്യമാണ്.

SPECIFICATION FOR 40 kV HV PROBE

Rated maximum operating voltage:

- DC voltage: 0 .. 40 kV
- AC voltage: 1 .. 28 kVeff or 40 kV peak (50 Hz)

Polarity: Positive/Negative

Division ratio: 1 kV input : 1 V output

Measurement uncertainty:

- DC voltage: $\pm 1\%$ at 20 kV, $\pm 2\%$ at 40 kV
- AC voltage: $- 5\%$ at 50 Hz

Probe input impedance: $\sim 1,000 \text{ M}\Omega$

Multimeter input impedance (voltmeter): $10 \text{ M}\Omega$

Operating temperature/storage temperature: $0.. 50 \text{ }^\circ\text{C}/ - 20 .. +70 \text{ }^\circ\text{C}$

- Humidity: 80% RH at $40 \text{ }^\circ\text{C}$ without condensation
- Influence of temperature: 200ppm / $^\circ\text{C}$
- Length of earth connection lead: $\sim 90 \text{ cm}$
- Length of voltmeter connection lead: $\sim 100 \text{ cm}$
- Approximate Dimensions/weight: $340 \text{ mm} \times \varnothing 80 \text{ mm} / \sim 300 \text{ g}$

Guaranteed Technical Particulars for 40kV HV Probe

Product Offered—Model & Make

Rated Maximum Operating Voltage (DC)

Rated Maximum Operating Voltage (AC)

Reversible Polarity

Division Ratio

Measurement uncertainty (DC)

Measurement uncertainty (AC)

Probe input impedance

Multimeter input impedance (voltmeter)

Influence of Temperature

Length of earth connection lead

Length of voltmeter connection lead

Operating Temperature

Dimensions

(5)

[No. 08/ 2012-13/CEI]

No. G1/18377/2012/CEI.

15th January 2013.

Sealed tenders are invited for the supply of following Equipment to the Office of the Chief Electrical Inspector, Housing Board Buildings, Shanthi Nagar, Thiruvananthapuram.

Sl. No.	Name of Equipments with specification	Quantity required (Nos.)
1	Standard Resistance Box—0-2000M Ω	9
2	Standard Resistance Box—0-1000M Ω	9

PAC — 6 lakh.

E.M.D— 6,000.

Cost of tender form (Including 5% VAT):

Original— 1,260.

Duplicate— 630.

Last date and time of sale of tender form—10-2-2013 at 12 Noon.

Last date and time of receipt of sealed tenders—10-2-2013 at 3 p. m.

Date and time of opening of tender—10-2-2013 at 3.30 p.m.

Tender outer cover should be addressed—The Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram-695 001.

Method of submission of tender—Open Tender-2 Part.

Place at which tenders will be opened—The Chamber of the Chief Electrical Inspector, Thiruvananthapuram (If the due date for receiving and opening the tenders happens to be declared holiday, then the tender will be received and opened on the next working day, for which no prior intimation will be given).

Original tender form and Duplicate tender form can be purchased from the office of the Chief Electrical Inspector to Government of Kerala, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram- 695 001.

* Downloaded tender forms are not accepted.

* Cost of tender forms (Original and Duplicate) is accepted only in Cash.

For further details visit www.ceikerala.gov.in

തിരുവനന്തപുരം മുഖ്യ വൈദ്യുതി ഇൻസ്പെക്ടറുടെ കാര്യാലയത്തിലേക്ക് താഴെപ്പറയുന്ന ഉപകരണങ്ങൾ വിതരണം ചെയ്യുന്നതിന് മുദ്രവച്ച ദർഘാസുകൾ ക്ഷണിച്ചുകൊള്ളുന്നു.

ക്രമ നമ്പർ	ഉപകരണത്തിന്റെ പേരും വിശദവിവരവും	ആവശ്യമുള്ള എണ്ണം
1	സ്റ്റാൻഡേർഡ്സ് റസിസ്റ്റൻസ് ബോക്സ് -0-2000MΩ	9
2	സ്റ്റാൻഡേർഡ്സ് റസിസ്റ്റൻസ് ബോക്സ് -0-1000Ω	9

അടങ്കൽ തുക— 6 ലക്ഷം.

നിരതദ്രവ്യം— 6,000.

ദർഘാസ് ഫോറത്തിന്റെ വില (5% വാറ്റ് സഹിതം):

അസൽ— 1,260.

പകർപ്പ്— 630.

ദർഘാസ് ഫോറം വിൽക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 12 മണി.

പുതിപ്പിച്ചതും സീൽ ചെയ്തതുമായ ദർഘാസുകൾ സ്വീകരിക്കുന്ന അവസാന തീയതിയും സമയവും—10-2-2013, 3 മണിവരെ.

ദർഘാസുകൾ തുറക്കുന്ന തീയതിയും സമയവും—10-2-2013, 3.30 മണി.

വിശദ വിവരങ്ങൾ www.ceikerala.gov.in എന്ന വെബ്സൈറ്റിൽ ലഭ്യമാണ്.

SPECIFICATION FOR PRECISION DECADE RESISTANCE Box (0.1-2000MΩ, 1kV)

Working Voltage	.. 1kV DC min.
Power Consumption	.. 1.5 W
Resistance Ranges	.. 0.1MΩ to 2000MΩ, decades of 1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ 1MΩ, and 100MΩ + 1000MΩ
Stability	.. 0.5 %
Accuracy	.. 0.1 %, for decades of 10Ω, 100Ω, 1kΩ, 10kΩ 100KΩ 1MΩ, 10Ω 0.5 % for decades of 10Ω to 100MΩ

Decade	Resistance per Step	Total Resistance on decade dial	Impressed Voltage
First	1 ohm	1.0 kilo ohm	1000 Volts DC
Second	1.0 kilo ohm	1.0 kilo ohm	1000 Volts DC
Third	10 kilo ohm	100 kilo ohm	1000 Volts DC
Forth	100 kilo ohm	1Megaohm	1000 Volts DC
Fifth	1Megaohm	10 Mega ohm	1000 Volts DC
Sixth	10 Megaohm	100 Mega ohm	1000 Volts DC
Seventh	100 Megaohm	1000 Mega ohm	1000 Volts DC
Eighth		2000 Mega ohm	1000 Volts DC

Total Available Resistance: 2000 Mega Ohm

SPECIFICATION FOR PRECISION DECADE RESISTANCE Box (0.1-1000Ω, 1kV)

Working Voltage	.. 1kV DC min
Power Consumption	.. 1.5 W
Resistance Ranges	.. 0.1Ω, to 1000Ω, decades of 1Ω, 10Ω, 100Ω and 1kΩ,
Stability	.. 0.5 %
Accuracy	.. 0.1 % for decades of 10Ω, 100Ω, and 1kΩ

Decade	Resistance per Step	Total Resistance on decade dial	Impressed Voltage
First	0.1 ohm	1 ohm	1000 Volts DC
Second	1 ohm	10 ohm	1000 Volts DC
Third	10 ohm	100 ohm	1000 Volts DC
Forth	100 ohm	1 Kilo ohm	1000 Volts DC
Total Available Resistance: 1000 Ohm			

SECTION-I

Earnest Money Deposit

1. Tenderer should pay the specified amount towards Earnest Money Deposit of 6,000.
2. The Earnest Money Deposit specified above should be in the form of a Demand Draft/ Banker Cheque payable at Thiruvananthapuram for the above amount from any of the Nationalised/Scheduled/ Foreign Banks with branches in India payable to the Chief Electrical Inspector to Government of Kerala.
3. The EMD will not carry any interest.
4. The Earnest Money Deposit will be refunded to the unsuccessful tenderers.
5. Cheque will not be accepted towards EMD and the tenders shall be rejected if EMD is not paid in the prescribed manner.
6. Agreement in 100 Kerala Stamp Paper as per the Format given in the standard terms & conditions must be enclosed along with the Earnest Money Deposit.

SECTION - II

Bid Qualification Requirements (BQR)

The Bidders shall become eligible to bid on satisfying the following Bid Qualification Requirements and on production of the required documentary evidence along with tender.

- The bid shall be submitted by the manufacturer having manufacturing facility / or their branch office in India either directly or through their authorised dealers.

- The bidder should be in a position to assume, on a single point responsibility basis, the full obligation and responsibility for supplying the materials within 30 days from the date of supply order.
- The manufacturer must have ISO certification and have at least 10 years of experience in design and manufacturing of meter test bench.
- Tenderers shall submit particulars of similar equipments supplied by them to some of the important customers in India or abroad especially in tropical regions. Preference will be given to the manufacturer having his own organization or accredited representatives of long standing possessing suitable technical and installation experience.
- The bidder should not have been Black Listed (Debarred from quoting further tenders) on the ground of poor performance/ poor supply records from any Indian utility/ test house.
- The manufacturer must have their own service/ testing centre capable of repairing major components of offered test bench in India. Trained Engineers dedicated for trouble shooting & technical support should be permanently posted at service centre.

SECTION—III

Instructions to Tenderers

Sealed tenders in Two Part System (A) Technical Bid with Commercial terms but without Price Bid and (B) Price Bid (both bids in duplicate) in accordance with the attached Commercial terms and Technical Specifications will be received for and on behalf of Chief Electrical Inspector to Government of Kerala. All the tenders shall be prepared and submitted strictly in accordance with the instructions set forth herein. Tender Documents should be duly signed and stamped on each and every page and all Schedules duly filed in should be submitted by the tenderer along with his offer. Otherwise the offer will be liable for rejection.

The tenderers who do not fulfill the “bid qualification requirement” as per section – II need not participate in the tender offers not satisfying this “bid qualification requirements” will not be considered and will be summarily rejected.

Two Part Tender

The tenders shall be in Two Part - Open Tender System as detailed below, each in a separate sealed envelope marked.

“Envelope – A” and “envelope – A”

The First envelope, called Envelope –A shall contain:

- (a) Unpriced Bid (i.e. Commercial & Technical Bid without Price)
- (b) Any other information called for in the Specification other than Price.

This Envelope—A should not Contain any Price Bid. If any of the Bidders indicate price schedule.

The tender in two parts shall be prepared in duplicate and put in separate sealed envelopes (Envelope—A & Envelope – B) as instructed above.

Outer envelope shall consist of :

1. EMD in Approved form & Agreement in Kerala Stamp Paper worth 100
2. Envelope –A
3. Envelope – B

Envelope—A and Envelope – B and the Outer Envelope should be individually sealed, superscribed with the tender number, materials offered and due date of submission and addressed to the Chief Electrical Inspector, Department of Electrical Inspectorate, Housing Board Building, Santhi Nagar, Thiruvananthapuram – 695 001. Upon successful verification of the fulfilment of the requirement of Earnest Money Deposit, the Envelope - A containing Unpriced Bid i.e ; Commercial Bid with Technical Terms except Price will be opened on the same day in respect of eligible tenderers satisfying the EMD requirements. If any of the bidders indicate price in Envelope – A the bid will not be read out and will be rejected.

Opening of Price Bids :

Envelope – B containing Price Bid will not be opened at the time of opening Envelope – A, but will be authenticated in the covers by the officers authorised to open the Bids. Envelope – B so authenticated will be kept under the safe custody of the empowered officer to open the tender. Envelope – B price Bid will be opened later, the date of which will be intimated to the tenders at a later date for the tenders who have fulfilled the ‘Bid Qualification Requirements’ and have accepted the specified Commercial & Technical Terms of this tender.

Chief Electrical Inspector, Thiruvananthapuram will not be responsible for any postal or other transit delay in receipt of the tender offer.

Telex/Fax or Telegraphic offers will not be entertained and will be rejected.

Any offer received by the purchaser after the due date and time specified for submission of the

tender offer will be declared late, rejected and returned unopened to the tenderer.

2.0 No offer shall be withdrawn by the tenderer in the interval between the deadline for submission and the expiry of the period of validity specified/extended validity of the tender offer.

2.1 **Only Manufacturers must Quote:** Tenders received from Agents/Dealers will not be considered. If the bids are received through Consortium, the same will not be considered and the bids will be rejected.

2.2 Destinations—Where materials are required:

The prices quoted should be on FOR Destination basis for delivery anywhere in the area under the jurisdiction of purchase organisation

2.3 Validity:

The tender offer shall be kept valid for acceptance for period of 180 days from the date of opening of offers. The offers with lower validity period are liable for rejection

2.4 further, the tenderer shall agree to extend the validity of the Bids without altering the substance and prices of their Bid for further periods, if any, required.

2.5 Deviations:

The offers of the Tenderers with Deviations in Commercial Terms and Technical Terms of the Tender Document are liable for rejection.

2.6 Tender document:

“All the intending Tenderers are requested that in the event of the documents furnished with the offer being found to be bogus or the documents contain false particulars the EMD paid by such Tenders will be forfeited in addition to blacklisting them for future tenders”

2.7 A Booklet with general conditions for Tenders is also part of this Tender Document. This shall also be submitted in duplicate with signature & seal on all pages. In the even of any discrepancy of any clause in this Tender Documents & the General Terms and Conditions, the conditions mentioned in this documents shall prevail. Clauses in the booklet shall be applicable unless and until mentioned otherwise in this document.

Office of the Chief Electrical
Inspector, Housing Board
Buildings, Shanthi Nagar,
Thiruvananthapuram.

(Sd.)
Chief Electrical Inspector.
